

Optimizing User, Group, and Role Management with Access Control and Workflows

Category: ServiceNow System Administartor

Skills Required:
Tensorflow, Oracle DB

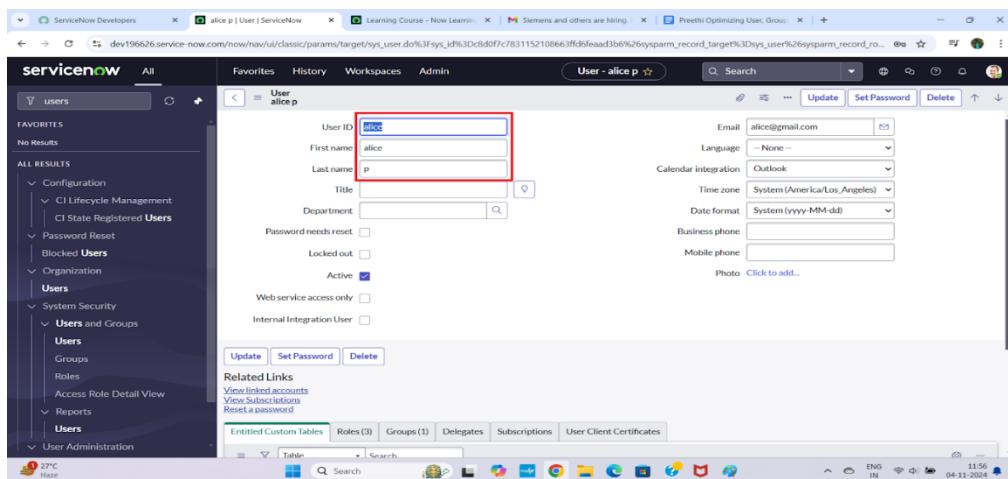
Project Description:

Problem Statement:

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there is a need to efficiently manage project tasks and ensure accountability throughout the project lifecycle. The current system lacks clear role definitions, access controls, and a structured workflow, leading to confusion regarding task assignments and progress tracking.

Create Users

1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new



5. Fill the following details to create a new user
6. Click on submit
- 7. Create one more user:**
8. Create another user with the following details
9. Click on submit

The screenshot shows the ServiceNow User creation interface. The User ID field contains 'bob'. The First name field contains 'Bob' and the Last name field contains 'p'. The Title field is empty. The Active checkbox is checked. Other fields like Email, Language, Calendar integration, Time zone, Date format, Business phone, and Mobile phone are also visible.

Create Groups

1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit

The screenshot shows the ServiceNow Groups page. On the left, there's a sidebar with a tree view of system categories like System Definition, System Mailboxes, System Security, and User Administration. The 'Groups' node under 'User Administration' is expanded, showing 'Users', 'Roles', and 'Groups'. The 'Groups' node is selected. The main content area shows a group named 'project team' with a 'Name' field set to 'project team'. Below the form, there's a table titled 'Group Members (2)' showing two entries: 'Created' and 'Search'. A sub-table titled 'Group = project team' shows 'Role' and 'Granted by' columns, both of which are empty. At the bottom of the page, there are 'Update' and 'Delete' buttons.

Create Roles

1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit

The screenshot shows the ServiceNow Roles page. The sidebar is identical to the previous screenshot, showing the 'Groups' node under 'User Administration' is selected. The main content area shows a role named 'project member' with a 'Name' field set to 'project member'. Below the form, there's a table titled 'Related Links' with tabs for 'Contains Roles', 'Applications with Role (2)', 'Modules with Role (2)', and 'Custom Tables'. A sub-table titled 'Role = project member' shows a single entry 'Contains' with a 'No records to display' message. At the bottom of the page, there are 'Update' and 'Delete' buttons, along with a 'New' button.

Create one more role:

- 7.Create another role with the following details
- 8.Click on submit

Assign roles to alice user

1. Open servicenow.Click on All >> search for user
2. Select tables under system definition
3. Select the project manager user
4. Under project manager
5. Click on edit
6. Select project member and save
7. click on edit add u_project_table role and u_task_table role
8. click on save and update the form.

The screenshot shows the ServiceNow user edit interface for a user named 'alice p'. The left sidebar is collapsed, showing a list of system groups like 'System Definition', 'Search Groups', 'Text Index Groups', 'System Mailboxes', 'Administration', 'Email Account Groups', 'System Security', 'Users and Groups', 'Groups', 'Roles', 'Access Role Detail View', 'Reports', 'Groups Membership', 'User Administration', 'Groups', 'Workspace Experience', 'Forms', and 'UI Action Groups'. The main panel displays the user's details: 'User - alice p' (Active checked), 'Web service access only' (unchecked), and 'Internal Integration User' (unchecked). Below these are 'Update', 'Set Password', and 'Delete' buttons. A 'Related Links' section includes 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the bottom, there is a table titled 'Entitled Custom Tables' with tabs for 'Roles (3)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'. The 'Roles' tab is selected, showing a list of roles assigned to the user: 'u.task_table_2_user' (Active, Inherited false), 'project member' (Active, Inherited false), and 'u.project_table_user' (Active, Inherited false). The 'u.task_table_2_user' row is highlighted with a red border. The status bar at the bottom shows '29°C Haze', 'ENG IN', '12:59', and the date '04-11-2024'.

Assign roles to bob user

1. Open servicenow.Click on All >> search for user
2. Select tables under system definition
3. Select the bob p user
4. Under team member
5. Click on edit
6. Select team member and give table role and save
7. Click on profile icon Impersonate user to bob

The screenshot shows the ServiceNow user profile for 'User - Bob p'. The left sidebar is collapsed, showing the 'groups' section. The main content area displays the user's details: 'User Bob p', 'Web service access only' (unchecked), and 'Internal Integration User' (unchecked). Below these are 'Update', 'Set Password', and 'Delete' buttons. A 'Related Links' section includes 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the bottom, a 'Roles' tabular view shows two roles: 'u_task_table_2_user' and 'team member', both marked as 'Active' and 'Inherited false'. The status bar at the bottom indicates '29°C Haze' and the date '04-11-2024'.

Role	State	Inherited	Inheritance Count
u_task_table_2_user	Active	false	
team member	Active	false	

8. We can see the task table2.

Assign table access to application

1. while creating a table it automatically create a application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give the project member and team member role for task table 2 application

The screenshot shows the ServiceNow application menu configuration page for 'project table'. The title bar includes tabs for 'Copy of template - Google Doc', 'project on users.groups.roles.t...', 'ServiceNow Developers', and 'project table | Application Men...'. The main header says 'Application Menu - project table' with a star icon. Below the header, there's a breadcrumb trail: 'Application Menu > project table'. A search bar and various navigation icons are on the right.

The main content area has the following fields:

- Title:** project table
- Application:** Global
- Active:** checked

A note below the title says: "An application menu is a group of modules in the application navigator. Choose the roles that are required to access the application and add or remove modules in the related list below." There is a link to "More Info".

Roles: project member

Category: Custom Applications

Hint: (empty field)

Description: (empty field)

At the bottom, there are 'Update' and 'Delete' buttons. A message on the right side of the page says: "Activate Windows" and "Go to Settings to activate Windows."

The screenshot shows the ServiceNow application menu configuration for 'task table 2'. Key settings include:

- Roles:** u_task_table_2_user, project member, team member
- Category:** Custom Applications
- Hint:** A placeholder for tooltip text.
- Description:** A large text area for additional information.

At the bottom, there are 'Update' and 'Delete' buttons, and a toolbar with 'Activate Windows' and 'Actions on selected rows...'.

Create ACL

1. Open service now.
2. Click on All >> search for ACL

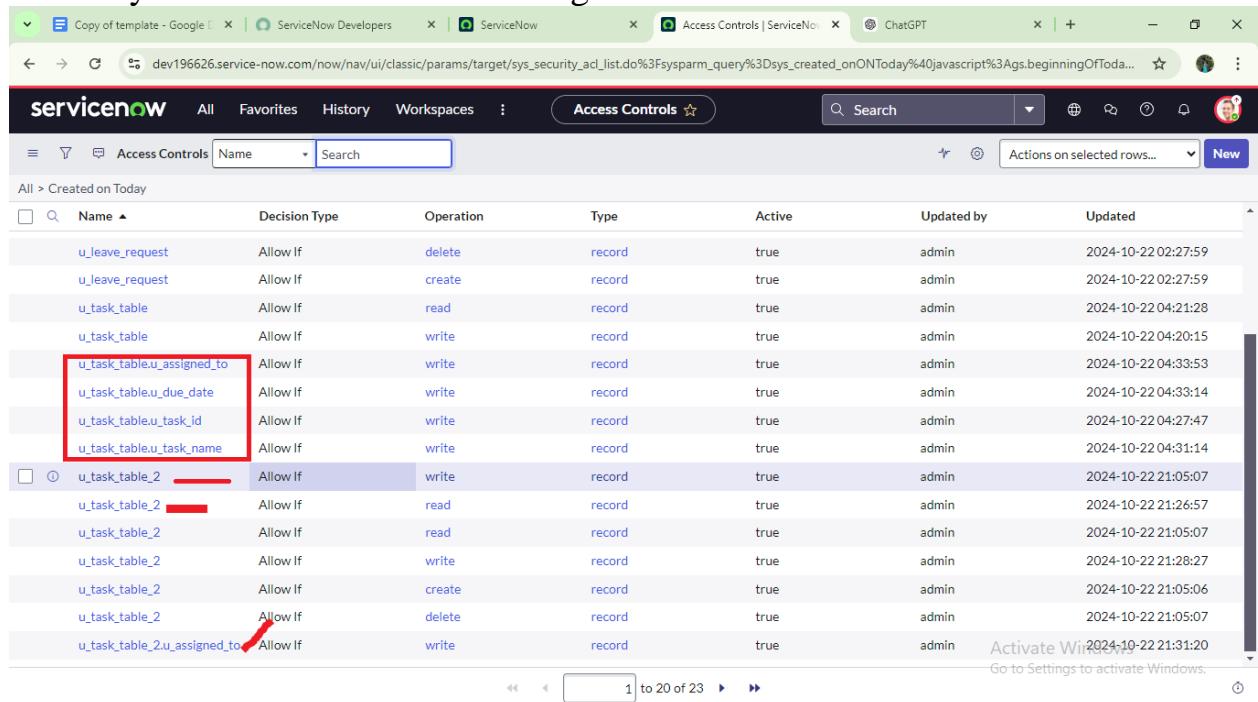
The screenshot shows the 'Access Control - New Record' configuration page. The setup includes:

- Type:** record
- Operation:** write
- Decision Type:** Allow If
- Admin overrides:** checked
- Protection policy:** -- None --
- Name:** task table 2 [u_task_table_2]
- Status:** status
- Applies To:** No. of records matching the condition: 1
Add Filter Condition | Add "OR" Clause
-- choose field -- | -- oper -- | -- value --

At the bottom, there is a 'Conditions' section and a note about decision types.

3. Select Access Control(ACL) under system security
4. Click on elevate role
5. Click on new
6. Fill the following details to create a new ACL

7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields



The screenshot shows a ServiceNow Access Controls grid. The top navigation bar includes tabs for 'Copy of template - Google', 'ServiceNow Developers', 'ServiceNow', 'Access Controls', 'ChatGPT', and browser controls. The main title is 'Access Controls | ServiceNow'. The grid has columns: Name, Decision Type, Operation, Type, Active, Updated by, and Updated. There are 23 rows in total. The first four rows are highlighted with a red box and a red arrow points to the fifth row. The fifth row is also highlighted with a red box.

	Name	Decision Type	Operation	Type	Active	Updated by	Updated
	u_leave_request	Allow If	delete	record	true	admin	2024-10-22 02:27:59
	u_leave_request	Allow If	create	record	true	admin	2024-10-22 02:27:59
	u_task_table	Allow If	read	record	true	admin	2024-10-22 04:21:28
	u_task_table	Allow If	write	record	true	admin	2024-10-22 04:20:15
	u_task_table.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 04:33:53
	u_task_table.u_due_date	Allow If	write	record	true	admin	2024-10-22 04:33:14
	u_task_table.u_task_id	Allow If	write	record	true	admin	2024-10-22 04:27:47
	u_task_table.u_task_name	Allow If	write	record	true	admin	2024-10-22 04:31:14
	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:05:07
	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:26:57
	u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:05:07
	u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:28:27
	u_task_table_2	Allow If	create	record	true	admin	2024-10-22 21:05:06
	u_task_table_2	Allow If	delete	record	true	admin	2024-10-22 21:05:07
	u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 21:31:20

12. Click on profile on top right side
13. Click on impersonate user
14. Select bob user
15. Go to all and select task table2 in the application menu bar

16. Comment and status fields are have the edit access

The screenshot shows a ServiceNow interface titled "task table 2 - Create Created". The page includes fields for "task id", "task name", "status" (set to "None"), "assigned to", "comments", and "due date". A "Submit" button is at the bottom left, and a "Submit" icon is at the top right. A watermark for "Activate Windows" is visible in the bottom right corner.

Create a Flow to Assign operations ticket to group

1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ task table”.
6. Application should be Global.
7. Click build flow.

Servicenow - task table 2 - Created 2024-10-22 2...

flow

No Results

ALL RESULTS

Process Automation

- Workflow Studio
- Flow Designer
- Flow & Action Designer action
- Today's Executions
- Active Flows
- Content Definitions

assigned to bob

comments

due date

Activate Windows
Go to Settings to activate Windows.

[https://dev196626.service-now.com/\\$flow-designer.do?sysparm_nostack=true](https://dev196626.service-now.com/$flow-designer.do?sysparm_nostack=true)

This screenshot shows the ServiceNow task table interface. A search bar at the top left contains the text 'flow'. To the right of the search bar is a search button and a refresh icon. Below the search bar is a navigation bar with tabs for 'All', 'Favorites', 'History', and a dropdown menu. The main content area displays a table with several rows, some of which are partially visible. On the right side of the table are buttons for 'Update' and 'Delete'. Below the table are three input fields: 'assigned to' with the value 'bob', 'comments', and 'due date'. At the bottom of the page, there is a message about activating Windows, followed by a URL link.

Workflow Studio - Flow

Homepage Operations Integrations

Playbooks Flows Subflows Actions Decision tables

Flows 39 Last refreshed just now

Name	Application	Status	Active	Update
Benchmark Recommendation Evaluator	Benchmarks Spoke	Published	true	2024-09-27 22:00:15
Business process approval flow	Global	Published	true	2020-09-27 22:00:15
Change - Cloud Infrastructure - Authorize	Global	Published	true	2020-11-11 07:08:05
Change - Emergency - Authorize	Global	Published	true	2020-10-06 05:39:49
Change - Emergency - Implement	Global	Published	true	2020-09-23 05:06:26
Change - Emergency - Review	Global	Published	true	2020-10-27 04:18:08
Change - Normal - Assess	Global	Published	true	2020-10-06 05:37:05
Change - Normal - Authorize	Global	Published	true	2020-10-06 05:38:35
Change - Normal - Implement	Global	Published	true	2020-09-23 04:23:59

New

Pick up where you left off

- Playbook
- Flow
- Subflow
- Action
- Decision table

task table

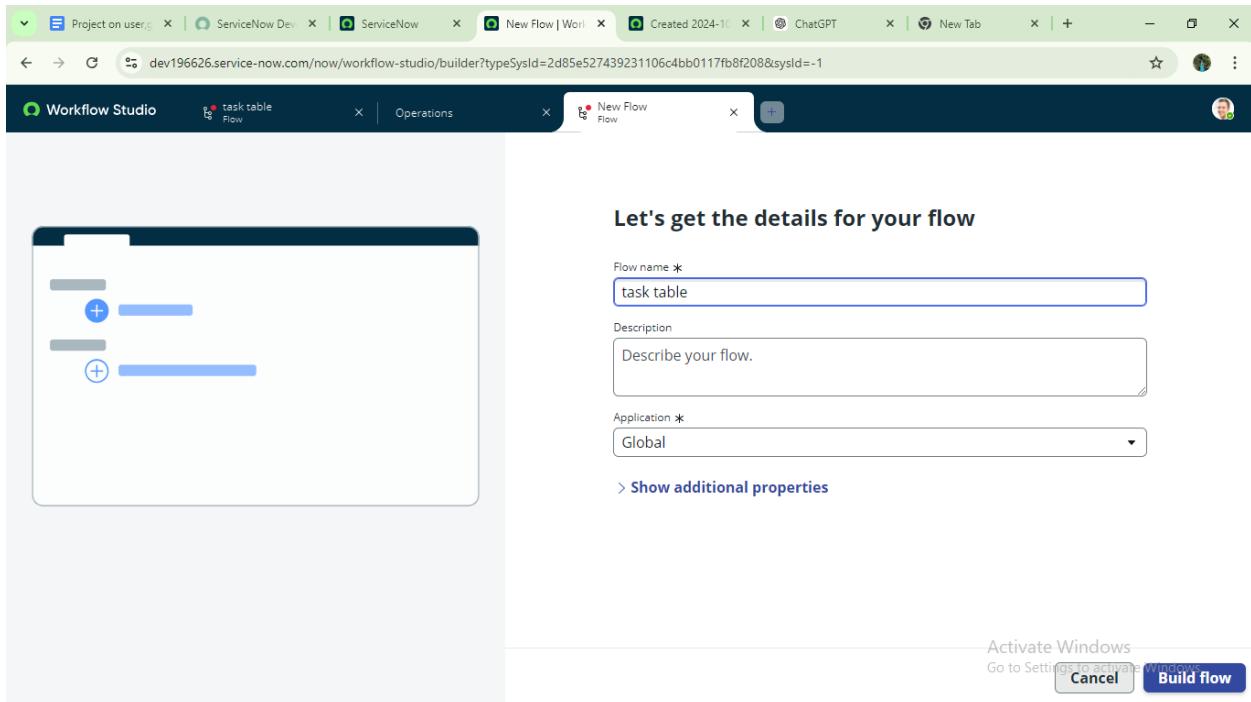
Create Flow Data

Steps

Latest updates

- System Administrator modified task table 14 min. ago
- System Administrator modified Create Flow Data 5 months ago
- System Administrator modified Steps Settings to activate Windows. 5 months ago

This screenshot shows the ServiceNow Workflow Studio interface. The top navigation bar includes 'Workflow Studio', 'task table', and 'Flow'. Below the navigation is a breadcrumb trail: 'Homepage - Flow'. The main content area has tabs for 'Homepage', 'Operations', and 'Integrations'. Under 'Flows', there is a count of 39 and a note that it was last refreshed 'just now'. Below this is a table listing various flows with columns for Name, Application, Status, Active, and Update. To the right of the table is a sidebar titled 'New' containing options like Playbook, Flow, Subflow, Action, and Decision table. Another sidebar titled 'Pick up where you left off' lists recent items: 'task table', 'Create Flow Data', and 'Steps'. A third sidebar titled 'Latest updates' shows activity logs from a System Administrator.



Next step:

1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress
Field : comments Operator :is Value : feedback
Field : assigned to Operator :is Value : bob
5. After that click on Done.

task table

Trigger: Created

* Table: task table 2 [u_task_table_2]

Condition: All of these conditions must be met

- AND
 - status is in progress
 - comments is feedback
 - assigned to is bob

New Criteria

Advanced Options

Delete Cancel Done

Data

- Trigger - Record Created
 - task table 2 Record
 - task table 2 Table
 - Run Start Time UTC
 - Run Start Date/Time
- 1 - Update Record
 - u_task_table_2 Record
 - u_task_table_2 Table
 - Action Status
- 2 - Ask For Approval
 - Approval State
 - Activate Windows

Next step:

1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)

task table

Action: Update Record

* Record: Trigger - Record Created

* Table: task table 2 [u_task_table_2]

* Fields: status completed

Add field value

Delete Cancel Done

Data

- Trigger - Record Created
 - task table 2 Record
 - task table 2 Table
 - Run Start Time UTC
 - Run Start Date/Time
- 1 - Update Record
 - u_task_table_2 Record
 - u_task_table_2 Table
 - Action Status
- 2 - Ask For Approval
 - Approval State
 - Activate Windows

4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.

Next step:

1. Now under Actions.
2. Click on Add an action.
3. Select action in that ,search for “ ask for approval ”.
4. In Record field drag the fields from the data navigation from Right side
5. Table will be auto assigned after that
6. Give the approve field as “ status”
7. Give approver as alice p
8. Click on Done.

The screenshot shows the ServiceNow Workflow Studio interface. The title bar indicates the current tab is 'task table'. The main workspace displays a workflow with two steps:

1. Update u_task_table_2 Record
2. Ask For Approval

For the second step, the configuration is as follows:

- Action: Ask For Approval
- * Record: 1 - Upda... > u_task_table_2 R...
- Table: task table 2 [u_task_table_2]
- Approval Field: status
- Journal Field: Select a field
- * Rules:
 - Approve When: All users approve (with user 'alice p' selected)
 - OR
 - Approve When: (empty)

A sidebar titled 'Data' lists various objects and their types:

- Trigger - Record Created**
 - task table 2 Record (Record)
 - task table 2 Table (Table)
 - Run Start Time UTC (Date/Time)
 - Run Start Date/Time (Date/Time)
- 1 - Update Record**
 - u_task_table_2 Record (Record)
 - u_task_table_2 Table (Table)
 - Action Status (Object)
- 2 - Ask For Approval**
 - Approval State (Choice)
 - Action Status (Object)

At the bottom of the screen, there are application status bars for 'Created 2024-11-10' and 'ChatGPT'.

1. Go to application navigator search for task table.
2. It status field is updated to completed

The screenshot shows a ServiceNow browser interface with multiple tabs open. The active tab is titled "task table 2 - Created 2024-10-22 2...". The page displays a form for editing a task record. The task ID is highlighted with a blue border. The task name is empty. The status dropdown is set to "completed". Other fields include "assigned to" (bob), "comments" (empty), and "due date" (empty). At the bottom left are "Update" and "Delete" buttons. A watermark for "Activate Windows" is visible at the bottom right.

task id	task table 2
task name	
status	completed
assigned to	bob
comments	
due date	

Update Delete

Activate Windows
Go to Settings to activate Windows.

1. Go to application navigator and search for my approval
2. Click on my approval under the service desk.
3. Alice p got approval request then right click on requested then select approved

The screenshot shows a ServiceNow interface with a table titled "Approvals". The table has columns: State, Approver, Comments, Approval for, and Created. The "State" column uses color-coded icons: green for Approved, red for Rejected, and yellow for Requested. The "Approver" column lists names like Alice P., Fred Luddy, Howard Johnson, Ron Kettering, Luke Wilson, Christen Mitchell, Bernard Laboy, and others. The "Comments" column contains entries such as "(empty)" or CHG0000095. The "Approval for" column shows various IDs. The "Created" column displays dates and times. A search bar at the top is set to "Created".

	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	Search	<input type="text"/> Search	<input type="text"/> Search	<input type="text"/> Search	<input type="text"/> Search
<input type="checkbox"/>	Approved	alice p.	(empty)		2024-10-22 22:26:19
	Rejected	Fred Luddy	(empty)		2024-09-01 12:19:33
	Requested	Fred Luddy	(empty)		2024-09-01 12:17:03
	Requested	Fred Luddy	(empty)		2024-09-01 12:15:44
	Requested	Howard Johnson	CHG0000096		2024-09-01 06:15:29
	Requested	Ron Kettering	CHG0000096		2024-09-01 06:15:29
	Requested	Luke Wilson	CHG0000096		2024-09-01 06:15:29
	Requested	Christen Mitchell	CHG0000096		2024-09-01 06:15:29
	Requested	Bernard Laboy	CHG0000096		2024-09-01 06:15:29
	Requested	Howard Johnson	CHG0000095		2024-09-01 06:15:25
	Requested	Ron Kettering	CHG0000095		2024-09-01 06:15:25
	Requested	Luke Wilson	CHG0000095		2024-09-01 06:15:25
	Requested	Christen Mitchell	CHG0000095		2024-09-01 06:15:25
	Requested	Bernard Laboy	CHG0000095		2024-09-01 06:15:25

Conclusion :

This scenario highlights a structured approach to project management, showcasing the roles of Alice and Bob within a defined workflow. With Alice's oversight and Bob's execution, the team effectively collaborates to ensure project success. The use of tables organizes key information, facilitating easy tracking of projects, tasks, and progress updates. Overall, this system promotes accountability, enhances communication, and leads to the successful completion of projects.